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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,660	07/06/2001	Lawrence I. Williams	011085	6537

23464 7590 11/30/2006

BUCHANAN INGERSOLL & ROONEY PC  
P.O. BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER
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HONG, HARRY S

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/900,660

Applicant(s)

WILLIAMS ET AL.

Examiner

Harry S. Hong

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 4-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Preliminary Amendment filed on August 31, 2001 has been placed of record and entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 4-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Koizumi et al. (Koizumi; 5,075,697; cited and applied for the first time).

Refer specifically to FIGs. 1, 2, 5, and 6 and to the Abstract of Koizumi; however, the entire patent to Koizumi is directed to teaching the claimed methods of modulating the polarization of an electromagnetic wave providing two channels for transmission (plainly shown by Koizumi). For example, with respect to the phase quadrature, refer to column 4, line 6 to column 5, line 5.

4. Claims 4-22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hodgkinson et al. (Hodgkinson; 5,107,358; cited and applied for the first time).

The entire patent to Hodgkinson also plainly teaches the claimed methods of modulating the polarization of an electromagnetic wave providing two channels for transmission. Refer to the Abstract; Figs. 1a-1c; column 2, lines 1 – 39; and column 3, lines 35 –45.

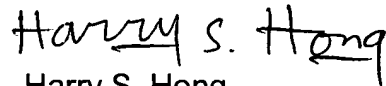
***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuecken teaches a system for polarization diversity modulation. Drabowitch et al. teach a device and method for data transmission and /or acquisition using two cross polarizations of an electromagnetic wave and magnetic recording device. Perpall et al. teach a multiplexing system combining a plurality of electromagnetic signals to propagate along a common path via polarization modulation. Barrett teaches a polarization-rotation modulated, spread polarization-rotation, wide-bandwidth radio-wave communications system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry S. Hong whose telephone number is (571) 272-7485. The examiner is normally off on Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink that reads "Harry S. Hong". The signature is written in a cursive, slightly stylized font.

Harry S. Hong  
Primary Examiner  
Art Unit 2614

November 27, 2006